#include <iostream>

#include <fstream>

using namespace std;

ifstream f("costapm.in");

int n,m,L[20];

struct muchie {int x,y,c};

muchie u[20];

void init() {for (int i=1;i<=n;i++) L[i]=i;}

void citire()

{

int i=0,x,y,c; f>>n;

while(f>>x>>y>>c) {i++; u[i].x=x; u[i].y=y; u[i].c=c;}

f.close(); m=i;

}

void sortare()

{

int i,j,muchie,aux;

for(i=1;i<m;i++)

for(j=i+1;j<=m;j++)

if(u[i].c>u[j].c) {aux=u[i]; u[i]=u[j]; u[j]=aux;}

void main()

{

int i=1,j,k=0,x,y,ct=0; citire(); sortare(); init();

cout<<"APM este format din uchiile: "<<endl;

while(k<n-1)

{

if(L[u[i].x]!=L[u[i].y])

{

k++; ct=ct+u[i].c;

cout<<"["<<u[i].x<<","<<u[i].y<<"] ";

x=L[u[i].y];

y=L[u[i].x];

for(j=1;k<=n;j++) if(L[j]==x) L[j]=y;

}

i++;

}

cout<<endl<<"costul total= "<<ct;

return 0;

}